

**Table 4a. Percentage distribution of science and engineering doctorates awarded, by major field and citizenship status of recipients: 1992-2001**

Field of study	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Total									
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	22.0	22.4	22.2	22.6	23.2	22.5	21.7	20.6	20.5	21.6
Aeronautical/astronautical .....	.9	.9	.9	.9	1.1	1.0	.9	.8	.8	.8
Chemical .....	2.9	2.9	2.8	2.7	2.9	2.8	2.8	2.6	2.8	2.8
Civil .....	2.4	2.5	2.6	2.5	2.6	2.4	2.4	2.3	2.1	2.3
Electrical .....	6.0	6.1	6.4	6.5	6.4	6.3	5.8	5.7	5.9	6.2
Industrial .....	.8	.9	.9	1.1	1.0	.9	.8	.8	.7	.8
Materials/metallurgical .....	2.0	2.1	2.1	2.2	2.1	2.1	2.1	1.8	1.7	2.0
Mechanical .....	4.0	4.0	3.9	3.9	3.9	3.8	3.7	3.3	3.3	3.7
Other engineering .....	3.0	3.0	2.8	2.9	3.3	3.1	3.1	3.3	3.1	2.9
Sciences, total <sup>1</sup> .....	78.0	77.6	77.8	77.4	76.8	77.5	78.3	79.4	79.5	78.4
Physical sciences, total .....	15.3	14.5	15.2	14.5	14.1	13.8	14.0	13.8	13.1	13.3
Astronomy .....	.5	.6	.5	.7	.7	.7	.8	.6	.7	.7
Chemistry .....	9.0	8.4	8.6	8.1	7.9	7.9	8.1	8.2	7.7	7.8
Physics .....	5.7	5.5	5.9	5.6	5.5	5.1	5.1	4.9	4.6	4.7
Other physical sciences .....	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1
Earth, atmospheric, and ocean sciences .....	3.2	3.0	3.1	2.9	2.9	3.2	3.0	3.1	2.9	2.9
Mathematics .....	4.3	4.5	4.3	4.5	4.1	4.1	4.3	4.2	4.0	3.9
Computer sciences .....	3.5	3.5	3.4	3.8	3.4	3.3	3.4	3.3	3.3	3.2
Biological sciences .....	19.4	20.0	19.9	20.3	21.0	21.3	21.4	21.5	22.5	22.3
Agricultural sciences .....	4.3	3.8	4.1	3.9	3.8	3.6	3.8	3.7	3.6	3.3
Psychology .....	13.2	13.4	12.9	12.9	12.8	13.1	13.5	14.2	13.9	13.5
Social sciences <sup>1</sup> .....	14.6	14.8	14.9	14.6	14.7	15.1	14.9	15.7	16.0	16.0
	Citizenship known									
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	21.9	22.2	22.2	22.6	23.1	22.7	21.6	20.5	20.3	21.5
Aeronautical/astronautical .....	.9	.9	.9	.9	1.0	1.0	.9	.8	.8	.8
Chemical .....	3.0	2.9	2.8	2.7	3.0	2.9	2.9	2.6	2.8	2.9
Civil .....	2.4	2.5	2.6	2.5	2.6	2.5	2.4	2.3	2.2	2.3
Electrical .....	6.0	6.1	6.4	6.5	6.3	6.4	5.8	5.7	5.8	6.2
Industrial .....	.8	.9	.9	1.1	1.0	.9	.8	.8	.7	.8
Materials/metallurgical .....	1.9	2.1	2.1	2.2	2.1	2.2	2.1	1.8	1.7	2.0
Mechanical .....	4.0	4.0	3.9	3.9	3.9	3.8	3.7	3.3	3.3	3.8
Other engineering .....	2.9	2.9	2.7	2.8	3.3	3.1	3.1	3.2	3.0	2.8
Sciences, total <sup>1</sup> .....	78.1	77.8	77.8	77.4	76.9	77.3	78.4	79.5	79.7	78.5
Physical sciences, total .....	15.4	14.5	15.2	14.5	14.0	13.8	14.1	13.7	13.1	13.5
Astronomy .....	.6	.6	.6	.6	.7	.8	.8	.6	.7	.7
Chemistry .....	9.0	8.4	8.6	8.1	7.8	7.9	8.2	8.2	7.6	7.9
Physics .....	5.7	5.5	5.9	5.6	5.4	5.1	5.0	4.9	4.6	4.8
Other physical sciences .....	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1
Earth, atmospheric, and ocean sciences .....	3.2	3.0	3.2	2.9	2.9	3.2	3.0	3.1	2.9	3.0
Mathematics .....	4.2	4.5	4.3	4.4	4.1	4.1	4.3	4.2	4.1	4.0
Computer sciences .....	3.6	3.5	3.4	3.8	3.4	3.3	3.4	3.3	3.3	3.2
Biological sciences .....	19.7	20.2	20.0	20.4	21.2	21.5	21.7	21.8	22.8	22.6
Agricultural sciences .....	4.4	3.9	4.2	3.9	3.8	3.6	3.9	3.8	3.7	3.3
Psychology .....	13.1	13.4	12.8	12.9	12.9	12.6	13.2	13.9	13.7	13.1
Social sciences <sup>1</sup> .....	14.6	14.8	14.8	14.6	14.6	15.0	14.9	15.6	16.1	16.0

See explanatory information, if any, and SOURCE at end of table.

**Table 4a. Percentage distribution of science and engineering doctorates awarded, by major field and citizenship status of recipients: 1992-2001**

Field of study	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
U.S. citizens										
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	14.5	14.9	14.6	15.4	16.6	17.0	15.8	15.6	14.1	14.3
Aeronautical/astronautical .....	.7	.8	.7	.9	1.1	1.0	.9	.6	.7	.6
Chemical .....	2.2	2.2	1.9	1.9	2.0	2.0	2.0	2.1	2.2	2.2
Civil .....	1.1	1.1	1.3	1.3	1.4	1.5	1.5	1.6	1.4	1.5
Electrical .....	4.1	4.2	4.2	4.4	4.5	4.7	3.9	4.0	3.4	3.1
Industrial .....	.4	.6	.6	.7	.7	.6	.5	.5	.4	.5
Materials/metallurgical .....	1.4	1.5	1.4	1.5	1.6	1.7	1.6	1.4	1.4	1.3
Mechanical .....	2.4	2.3	2.4	2.5	2.8	2.8	2.7	2.5	2.2	2.6
Other engineering .....	2.2	2.2	2.0	2.2	2.6	2.7	2.7	2.8	2.4	2.5
Sciences, total <sup>1</sup> .....	85.5	85.1	85.4	84.6	83.4	83.0	84.2	84.4	85.9	85.7
Physical sciences, total .....	14.8	14.0	14.5	13.8	13.3	13.2	13.2	12.8	12.0	12.4
Astronomy .....	.7	.7	.7	.8	.9	.9	.8	.7	.8	.8
Chemistry .....	9.1	8.5	8.5	8.0	7.5	7.7	7.9	7.9	7.1	7.5
Physics .....	4.9	4.7	5.2	4.9	4.9	4.5	4.3	4.1	4.0	4.0
Other physical sciences .....	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
Earth, atmospheric, and ocean sciences .....	3.5	3.1	3.3	3.1	3.0	3.3	3.1	3.0	3.0	2.9
Mathematics .....	3.1	3.3	3.3	3.6	3.1	3.3	3.5	3.4	3.3	3.1
Computer sciences .....	2.9	2.8	2.8	3.1	2.7	2.7	2.9	2.6	2.5	2.4
Biological sciences .....	22.9	23.1	22.6	22.6	22.7	22.8	23.1	23.0	24.9	25.8
Agricultural sciences .....	3.5	3.1	3.4	3.2	3.0	2.9	2.9	2.8	2.8	2.7
Psychology .....	19.9	20.6	20.1	19.9	20.0	18.9	19.6	20.3	20.1	19.6
Social sciences <sup>1</sup> .....	14.9	15.1	15.3	15.4	15.6	16.0	15.9	16.5	17.2	16.8
Non-U.S. citizens										
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	33.3	33.3	33.1	33.1	32.5	32.2	31.3	29.2	30.9	33.4
Aeronautical/astronautical .....	1.3	1.1	1.1	1.0	1.0	1.1	.9	1.0	.9	1.0
Chemical .....	4.2	4.0	4.0	3.9	4.4	4.4	4.3	3.6	3.9	4.0
Civil .....	4.3	4.5	4.5	4.2	4.3	4.0	3.7	3.4	3.5	3.7
Electrical .....	8.9	8.9	9.5	9.5	9.0	9.2	8.9	8.6	9.9	11.1
Industrial .....	1.5	1.4	1.3	1.6	1.3	1.4	1.4	1.4	1.1	1.3
Materials/metallurgical .....	2.8	3.0	3.0	3.2	2.9	2.9	2.8	2.6	2.3	2.9
Mechanical .....	6.5	6.6	6.0	5.9	5.4	5.4	5.5	4.7	5.4	5.8
Other engineering .....	3.8	3.9	3.7	3.8	4.2	3.7	3.7	3.9	3.9	3.5
Sciences, total <sup>1</sup> .....	66.7	66.7	66.9	66.9	67.5	67.8	68.7	70.8	69.1	66.6
Physical sciences, total .....	16.3	15.4	16.1	15.5	15.1	14.8	15.5	15.4	15.0	15.2
Astronomy .....	.4	.4	.4	.5	.5	.4	.7	.5	.6	.6
Chemistry .....	8.9	8.2	8.7	8.4	8.4	8.2	8.5	8.7	8.5	8.4
Physics .....	7.0	6.7	6.9	6.6	6.2	6.1	6.2	6.2	5.8	6.0
Other physical sciences .....	.1	.1	.1	.1	.0	.0	.1	.1	.1	.1
Earth, atmospheric, and ocean sciences .....	2.9	2.8	2.9	2.7	2.8	3.1	2.8	3.3	2.6	3.1
Mathematics .....	5.9	6.3	5.7	5.7	5.5	5.5	5.5	5.7	5.5	5.3
Computer sciences .....	4.6	4.4	4.4	4.7	4.3	4.3	4.2	4.5	4.8	4.5
Biological sciences .....	14.8	15.9	16.3	17.2	19.0	19.5	19.3	19.7	19.3	17.2
Agricultural sciences .....	5.7	5.1	5.2	5.1	5.0	4.9	5.5	5.7	5.2	4.2
Psychology .....	2.5	2.5	2.2	2.5	2.6	2.3	2.7	2.5	2.6	2.5
Social sciences <sup>1</sup> .....	14.1	14.4	14.1	13.4	13.1	13.5	13.2	13.9	14.1	14.6

See explanatory information, if any, and SOURCE at end of table.

**Table 4a. Percentage distribution of science and engineering doctorates awarded, by major field and citizenship status of recipients: 1992-2001**

Field of study	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Non-U.S. citizens with permanent visas										
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	29.7	28.6	27.7	27.2	26.4	26.0	23.7	24.3	24.9	23.4
Aeronautical/astronautical .....	.6	.4	.7	.4	.6	.6	.6	.5	.7	.6
Chemical .....	4.3	3.2	2.9	2.6	2.4	3.9	2.3	2.3	3.0	2.2
Civil .....	3.7	3.6	2.9	2.9	3.1	3.4	2.5	3.1	2.8	3.7
Electrical .....	8.8	10.1	8.8	8.2	7.3	8.2	8.2	7.6	8.3	7.4
Industrial .....	1.4	1.0	1.0	1.2	1.0	.7	.8	.8	.7	1.3
Materials/metallurgical .....	2.5	2.4	2.6	3.2	3.1	1.9	2.4	2.1	1.6	1.8
Mechanical .....	5.4	5.3	5.9	5.1	5.1	3.6	4.1	3.9	4.0	3.3
Other engineering .....	3.0	2.7	2.9	3.6	3.8	3.7	2.8	3.9	3.7	3.0
Sciences, total <sup>1</sup> .....	70.3	71.4	72.3	72.8	73.6	74.0	76.3	75.7	75.1	76.6
Physical sciences, total .....	14.5	14.4	19.6	20.1	16.4	16.0	15.6	14.6	14.3	14.5
Astronomy .....	.4	.3	.3	.6	.4	.3	.7	.4	.8	.3
Chemistry .....	8.2	7.8	10.8	11.0	9.7	9.0	8.9	9.1	8.6	8.2
Physics .....	5.9	6.2	8.4	8.4	6.2	6.7	5.8	5.1	4.7	5.9
Other physical sciences .....	.0	.1	.1	.1	.0	.1	.1	.1	.1	.2
Earth, atmospheric, and ocean sciences .....	2.5	2.5	3.5	3.3	3.2	3.1	3.1	3.1	2.4	2.9
Mathematics .....	3.8	5.7	5.1	6.2	5.3	4.3	4.6	4.0	4.0	4.3
Computer sciences .....	4.8	5.1	3.9	3.8	3.1	3.9	4.2	4.4	5.0	4.4
Biological sciences .....	17.4	18.5	22.0	23.8	27.2	25.7	27.3	28.1	25.7	26.9
Agricultural sciences .....	4.5	3.0	3.2	3.0	3.4	3.6	3.9	3.1	3.9	2.2
Psychology .....	6.2	5.5	2.8	2.9	3.5	3.9	4.6	4.2	5.4	5.9
Social sciences <sup>1</sup> .....	16.6	16.7	12.2	9.7	11.7	13.4	13.0	14.2	14.5	15.5
Non-U.S. citizens with temporary visas										
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	33.9	34.3	35.2	36.1	34.9	34.0	33.2	30.3	32.0	35.0
Aeronautical/astronautical .....	1.4	1.2	1.3	1.3	1.2	1.3	.9	1.1	1.0	1.1
Chemical .....	4.2	4.2	4.5	4.5	5.1	4.6	4.8	3.9	4.0	4.2
Civil .....	4.4	4.7	5.1	4.8	4.7	4.1	4.1	3.5	3.6	3.7
Electrical .....	8.9	8.7	9.8	10.2	9.6	9.5	9.1	8.8	10.2	11.7
Industrial .....	1.5	1.5	1.4	1.9	1.5	1.6	1.5	1.5	1.2	1.4
Materials/metallurgical .....	2.9	3.1	3.1	3.2	2.8	3.2	2.9	2.7	2.4	3.1
Mechanical .....	6.7	6.8	6.1	6.3	5.6	6.0	5.8	4.9	5.7	6.2
Other engineering .....	4.0	4.2	4.0	3.9	4.4	3.8	4.0	3.9	3.9	3.5
Sciences, total <sup>1</sup> .....	66.1	65.7	64.8	63.9	65.1	66.0	66.8	69.7	68.0	65.0
Physical sciences, total .....	16.6	15.5	14.7	13.3	14.6	14.4	15.5	15.6	15.1	15.3
Astronomy .....	.3	.4	.4	.4	.5	.5	.7	.5	.5	.7
Chemistry .....	9.0	8.3	7.9	7.0	7.8	8.0	8.5	8.6	8.4	8.5
Physics .....	7.2	6.8	6.3	5.7	6.2	5.9	6.3	6.4	6.0	6.1
Other physical sciences .....	.1	.0	.1	.1	.0	.0	.1	.1	.1	.1
Earth, atmospheric, and ocean sciences .....	2.9	2.9	2.6	2.5	2.6	3.1	2.8	3.3	2.7	3.2
Mathematics .....	6.3	6.4	6.0	5.5	5.7	5.9	5.7	6.1	5.8	5.5
Computer sciences .....	4.5	4.3	4.6	5.2	4.8	4.4	4.2	4.6	4.7	4.5
Biological sciences .....	14.3	15.3	14.1	13.8	15.9	17.6	17.2	17.8	18.1	15.6
Agricultural sciences .....	5.9	5.5	6.0	6.1	5.6	5.2	5.9	6.3	5.4	4.5
Psychology .....	1.9	1.8	2.0	2.4	2.3	1.8	2.2	2.1	2.1	1.9
Social sciences <sup>1</sup> .....	13.6	13.9	14.8	15.2	13.6	13.5	13.3	13.9	14.0	14.5

See explanatory information, if any, and SOURCE at end of table.

**Table 4a. Percentage distribution of science and engineering doctorates awarded, by major field and citizenship status of recipients: 1992-2001**

Field of study	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
	Citizenship unknown									
Science and engineering, total <sup>1</sup> .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Engineering, total .....	27.2	28.6	23.9	26.1	24.5	17.3	23.9	22.0	25.4	22.3
Aeronautical/astronautical .....	3.1	1.2	.8	.9	1.3	.6	1.5	1.1	1.1	1.1
Chemical .....	1.3	3.0	1.7	1.7	.8	1.1	2.3	1.9	2.9	2.7
Civil .....	3.2	2.3	1.5	1.9	2.8	1.4	3.0	1.7	1.3	2.0
Electrical .....	6.2	5.9	8.1	9.0	8.2	5.2	6.6	6.6	9.7	6.7
Industrial .....	.6	.8	.0	.8	.8	.7	.6	.4	.4	.7
Materials/metallurgical .....	2.6	2.3	1.9	2.3	2.0	1.7	1.9	1.3	2.2	2.0
Mechanical .....	3.4	5.7	3.7	4.3	3.7	2.7	4.2	3.3	2.8	2.6
Other engineering .....	6.8	7.2	6.2	5.3	5.0	3.9	3.7	5.8	5.0	4.5
Sciences, total <sup>1</sup> .....	72.8	71.4	76.1	73.9	75.5	82.7	76.1	78.0	74.6	77.7
Physical sciences, total .....	12.0	14.2	16.4	13.0	16.8	14.1	13.4	15.4	13.5	10.1
Astronomy .....	.0	.0	.0	.8	.1	.2	.6	.4	.3	.8
Chemistry .....	6.8	8.3	9.1	8.5	9.6	8.2	7.3	9.2	8.5	6.0
Physics .....	4.9	5.7	6.4	3.8	7.0	5.4	5.4	5.8	4.6	2.8
Other physical sciences .....	.3	.1	.8	.0	.0	.2	.1	.0	.1	.5
Earth, atmospheric, and ocean sciences .....	2.8	4.2	2.5	2.4	4.0	3.0	2.9	3.3	3.8	2.5
Mathematics .....	6.5	5.2	2.1	6.6	4.1	4.0	4.9	3.0	2.7	3.7
Computer sciences .....	2.3	3.0	3.5	3.0	3.8	4.4	3.0	2.9	3.4	3.8
Biological sciences .....	11.0	12.4	11.6	14.3	15.3	15.8	16.3	15.2	16.6	16.9
Agricultural sciences .....	2.1	1.8	1.7	1.7	2.4	3.0	2.6	1.1	2.1	4.6
Psychology .....	19.6	14.9	19.1	15.0	10.8	22.1	18.6	20.0	18.7	20.3
Social sciences <sup>1</sup> .....	16.5	15.7	19.3	17.9	18.3	16.3	14.4	17.0	13.7	15.9

<sup>1</sup> Categories are grouped differently from the questionnaire and the Summary Reports in that linguistics, history of science, American studies, and archaeology are included not in humanities but in social science.

**SOURCE:** National Science Foundation /Division of Science Resources Statistics, Survey of Earned Doctorates